

HANCOCK ASSOCIATES

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#26696

September 13, 2023

Town of Rowley
Planning Board
Town Hall Annex - 39 Central Street
Rowley, MA 01969

RE: Forest Ridge Drive Permit Site Plans
Assessor's Parcel ID 7-17
Gateway II Trust of 1997

Dear Board Members:

On behalf of Gateway II Trust of 1997, Hancock Associates is pleased to respond to Technical/Planning Review Report No. 2 made by H.L. Graham Associates dated September 6, 2023, for the above referenced project.

The following comments are made in response to H.L. Gramham's letter.

Peer review comment:

2.c. *The response purports that the entrance drive off Capco drive has adequate geometrics for the maneuvering of WB-50 vehicles and Rowley Fire Department emergency vehicles.*

What has not been addressed or provided in the plans is curbing, signage, etc. for this access drive. Plans also suggest that water, gas and electric will be extended under or alongside of this drive, perhaps necessitating partial excavation of the roadway? These proposed utility connections and road work to the Capco drive should be shown as part of this proposed work. Is the subject drive only binder?

Hancock Response:

The existing access drive has been in place for about 2 years and has had no negative effects on drainage. The intent is to not install curbing to allow for the drainage to flow naturally across the access drive as it currently does. The impervious surface for the access drive was included in the recent drainage report associated with the Special Permit filing for 58-66 Forest Ridge Drive. Stormwater from this access drive flows into the infiltration basin to the south of Capco. So, drainage is not an issue. The water and electric utilities have already been installed in the access drive, so the only utility remaining is the gas. An existing gas line is readily available at the beginning of the access drive. So, the only work proposed to complete this drive is the installation of the gas line and final paving. This has been depicted on the Site Plans.

Peer review comment:

2.f. *The guardrail has been shown as requested. However, it shows no opening for M&R access to the infiltration basin.*

Hancock Response:

Adjustments to the guard rail have been made on the Site Plans to accommodate access to the infiltration pond.

Level Spreader details have been added. The dimensions are different on Sheets C-1 and C-3. We suggest the design engineer try to improve on the angle of the conduit leading into the scour hole at the head of the level spreader.

Hancock Response:

The dimensions of the level spreaders and the angle of the conduit entering them have been adjusted on the Site Plans as suggested.

The Level Spreader detail on Sheet C-7 shows some extent of rip-rap below the concrete header in the Section View but not in the Plan View?

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Hancock Response:

This detail has been revised on the Site Plans as suggested.

In this detail there also appears to be an errant Filtermit detail?

Hancock Response:

The Filtermit detail has been removed as suggested.

Peer review comment:

2.h. *Rip-rap swales have been added to address runoff at the toe of the slope from the wooded slope northeasterly of the site. A culvert pipe has also been added under the entrance road to carry stormwater to another swale draining southerly.*

We suggest the culvert pipe be given an I.D. and included on the schedule on Sheet C-4. We also note that the length and slope shown on the plans does not agree with the HydroCAD figures. When the correct slope is used in the HydroCAD calculations it may cause the need to upsize the pipe?

Hancock Response:

The culvert information has been adjusted on the Site Plans to match the HydroCAD calculations and an I.D. on Sheet C-4 has been added to the Site Plans.

The expanse of the 1:1 Rock Slope above these swales will take out a lot of trees as well as require a lot of rock to be imported. Was there any consideration of one or more walls and terracing in lieu of the rock slope?

Hancock Response:

Retaining walls were considered in this design but the cost is prohibitive. It is worth noting that the proposed rip-rap slope disturbs about half acre of land. Undisturbed areas that preserve trees on this site total about 2.5 acres. This area could have been developed and is five times the area that could be preserved by the use of retaining walls. In addition, Gateway donated 24 acres of land that was previously proposed as development by the previous owners and now will be permanently preserved.

We would submit that Gateway has done its fair share of protecting open space on this property.

Peer review comment:

2.i. *The proposed bottom elevation of the Infiltration Basin and the outlet control structure elevations have been changed on the plans but not in the HydroCAD calculations.*

Hancock Response:

The HydroCAD model has been revised as suggested.

Peer review comment:

2.j. *The response to this comment is that "more details to follow" concerning the "Proposed Conservation Restriction Area". Planning Board? Conservation Commission? Condition of any approval action?*

Hancock Response:

Gateway plans to potentially donate an additional 2.5 acres of land to the Town at some future time. Those plans are on hold until development of this site proceeds. We would prefer this not be made a condition of approval.

Peer review comment:

2.k. *Any approval action taken by the Board should include a condition that all roof drainage will be tied into the proposed and approved drainage system.*

Hancock Response:

We take no exception to the recommended condition.

Peer review comment:

2.m. *Details of the Outlet Control Structure were added to the plans. As previously mentioned, elevations of the structure in the plans do not match those in the HydroCAD calculations.*

In addition, the plans detail a 4' diameter grate cover where the HydroCAD calculations reference a 12"x12" grate.

Hancock Response:

The HydroCAD model and Stormwater Report and Site Plans have been modified to address these comments. The outlet grate has been removed from the design.

Peer review comment:

2.n. *An Emergency Overflow has been added to the Infiltration Basin but has less than the recommended 1' freeboard.*

Hancock Response:

The Site Plans have been revised to accommodate the recommended 1' freeboard. This has resulted in about a 20% increase in the size of the infiltration basin.

Peer review comment:

2.o. *We recommend elevations be shown on the Hydrodynamic Separator detail on Sheet C-8 and that the structure and pipe schedule on Sheet C-4 be completed for this BMP.*

Hancock Response:

The requested information has been added to the Site Plans.

Peer review comment:

2.p. *We suggest that plans depict the rip-rap energy dissipators at flared-end sections into and out of the Infiltration Basin where only a note has been added.*

Hancock Response:

The requested information has been added to the Site Plans.

Peer review comment:

2.q. *The rip-rap detail on Sheet C-7 specified 12" rip-rap for an 18" depth?*

Hancock Response:

The detail has been adjusted to be 6" trap stone to address this issue.

Peer review comment:

2.s. *There are not notes or details for drain manholes greater than 48" I.D. Drain manholes 3, 4 and 6 are noted on the plans as 6' I.D. The HydroCAD calculations still reference these structures as 48" I.D. vs. 72" I.D.*

Hancock Response:

The Site Plans and HydroCAD calculations have been revised to address this issue.

Peer review comment:

2.u. *The plans have added three snow storage areas. The southerly most area cannot be accessed due to guardrail. The other two areas are small and up against buildings. A note on Sheet C-1 says snow will be removed off-site? Planning Board?*

Hancock Response:

Snow storage areas have been revised. The Applicant proposes to store snow on the rip-rap slope or off site. Using a front-end loader, the rip-rap slope will be an ideal location to store snow.

Peer review comment:

4.b. *NJCAT certifies the proposed Hydrodynamic Separator for 50% not the 95% used in the TSS Removal calculation. We recommend the Treatment Train Calculation on Page 4 of the Stormwater Report be revised. The resultant Total TSS Removal will be 93% well above the required 80%.*

Hancock Response:

Revisions to the Stormwater Report have been made as requested.

Peer review comment:

4.x. The following additional comments are offered in regard to the revised Stormwater Report:

1. The Peak Rates of Runoff table on Page 3 for the Proposed Peak Rates (all 4 events at DP1) do not match the 7/26/23 HydroCAD calculations.
2. The Treatment Train Calculation table on Page 4 should be revised as mentioned above.
3. The Stormwater Report Checklist on Page 5 of 6 should check off the first box below the Standard 3 heading.
4. In general, the 7/26/23 HydroCAD calculations need to be coordinated with the plans. Of specific note are the:
 - Reach Culvert
 - Reach P-20
 - Ponds CB3, CB4, CB6
 - Pond IB: Infiltration Basin

Hancock Response:

The recommended revisions to the Stormwater Report have been made.

We look forward to discussing these issues at the next Planning Board hearing.

Sincerely,

HANCOCK ASSOCIATES on behalf of Gateway II Trust of 1997



Charles E. Wear, III, P.E.
Engineering Manager/Senior Project Manager

cc: H.L. Graham, P.E.
Rowley Conservation Commission
Gateway II Trust of 1997